	Application No.	Applicant(s)
AL 41	09/748,506	HAYASHI ET AL.
Notice of Allowability	Examiner	Art Unit
	Kim-Kwok CHU	2653
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in this or other appropriate communica GHTS. This application is subje	s application. If not included ation will be mailed in due course. THIS
1. This communication is responsive to <u>Amendment filed on 2</u>	<u>2/4/04 (paper 13)</u> .	
2. The allowed claim(s) is/are 1, 3-5, 7-10 and 12-15 which at	re renumbered as 1-12 respectiv	<u>/ely</u> .
3. \boxtimes The drawings filed on <u>26 December 2000</u> are accepted by	the Examiner.	
 4. Acknowledgment is made of a claim for foreign priority una) All b) Some* c) None of the: Certified copies of the priority documents have Certified copies of the priority documents have Copies of the certified copies of the priority documents have Copies of the certified copies of the priority documents have linternational Bureau (PCT Rule 17.2(a)). Certified copies not received: 	been received. been received in Application No	o
Applicant has THREE MONTHS FROM THE "MAILING DATE" on noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		eply complying with the requirements
5. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give		
6. CORRECTED DRAWINGS (as "replacement sheets") mus	t be submitted.	•
(a) \square including changes required by the Notice of Draftspers	on's Patent Drawing Review (P	TO-948) attached
1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the	ne Office action of
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the		
7. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT I		
Attachment(s) 1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/0 Paper No./Mail Date 12 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Summ Paper No./Mail 8), 7. ☐ Examiner's Ame	Date
· · ·		

Allowable Subject Matter

- 1. Claims 1, 3-5, 7-10 and 12-15 are allowable over prior art.
- 2. The following is an Examiner's statement of reasons for the indication of allowable subject matter based on the Amendment (paper #13) filed on February 4, 2004:

As in claims 1, 7 and 12, the prior art of record fails to teach or fairly suggest a controller for controlling interruption and restarting of data writing to a recording medium having the following features:

(a) a lock generator generates a first system clock in accordance with the decoding of the decoder, generates a second system clock based on a reference clock having a predetermined frequency, suspends providing the first system clock to the encoder until the decoding catches up with the encoding when the decoding of the decoder is delayed from the encoding of the encoder, provides the first system clock to the encoder during a period in which the encoding of the encoder and the decoding of the decoder are synchronized, and provides the second system clock to the encoder from when the decoding of the decoder and the encoding of the encoder reach the data at which data recording was interrupted.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious

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over, the prior art of record.

- Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- Any response to this action should be mailed to: 4.

Commissioner of Patents and Trademarks Washington, D.C. 20231 Or faxed to:

(703) 872-9306 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032.

~ 2/18/04

Kim-kwok CHU Examiner AU2653 February 18, 2004

(703) 305-3032

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2600



United States Patent and Trademark Office

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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspio.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

26161

7590

02/19/2004

FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 EXAMINER

CHU, KIM KWOK

ART UNIT PAPER NUMBER

DATE MAILED: 02/19/2004

2653

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,506	12/26/2000	Koji Hayashi	10449-032001	4085

TITLE OF INVENTION: CONTROLLER OF DATA RECORDER

APPLN. TYPE	APPLN. TYPE SMALL ENTITY		PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	05/19/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

(703) 746-4000 or Fax

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

26161

7590

02/19/2004

FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO, on the date indicated below.

(Depositor's name) (Signature (Date)

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,506	12/26/2000	Koji Havashi	10449-032001	4085

TITLE OF INVENTION: CONTROLLER OF DATA RECORDER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE		PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330		\$300	\$1630	05/19/2004
EXAMINER		ART UNIT		CLASS-SUBCLASS]	
CHU, KIM KWOK 265				369-047300	_	
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			names of agents Ol firm (hav agent) an	nting on the patent front page, up to 3 registered patent a R, alternatively, (2) the name ing as a member a registered d the names of up to 2 registor agents. If no name is listed inted.	of a single attorney or 2tered patent	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY)

(A) NAME OF ASSIGNEE

Please check the appropriate assignee category or cate	gories (will not be printed on the patent);	☐ individual	☐ corporation or other private group entity	y 🚨 government
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):	_		
☐ Issue Fee	☐ A check in the amo	ount of the fee(s)	is enclosed.	
☐ Publication Fee	☐ Payment by credit	card. Form PTO-	2038 is attached.	
☐ Advance Order - # of Copies		reby authorized	by charge the required fee(s), or credit and (enclose an extra copy of this	y overpayment, to is form).
Director for Patents is requested to apply the Issue Fe	e and Publication Fee (if any) or to re-apply	any previously p	aid issue fee to the application identified ab	ove.
(Authorized Signature)	(Date)			
NOTE; The Issue Fee and Publication Fee (if req other than the applicant; a registered attorney or interest as shown by the records of the United States	uired) will not be accepted from anyone agent; or the assignee or other party in Patent and Trademark Office.			
This collection of information is required by 37 C obtain or retain a benefit by the public which is to application. Confidentiality is governed by 35 U.S.C estimated to take 12 minutes to complete, including completed application form to the USPTO. Time case. Any comments on the amount of time yor suggestions for reducing this burden, should be selected and Trademark Office, U.S. Departmen 22313-1450. DO NOT SEND FEES OR COMP SEND TO: Commissioner for Patents, Alexandria, V	gathering, preparing, and submitting the will vary depending upon the individual require to complete this form and/or at to the Chief Information Officer, U.S. to f Commerce, Alexandria, Virginia LETED FORMS TO THIS ADDRESS. Virginia 22313-1450.			
Under the Paperwork Reduction Act of 1995, ne collection of information unless it displays a valid O	persons are required to respond to a MB control number.			



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APPLICATION N	10. F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,506		12/26/2000	Koji Hayashi	10449-032001	4085
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FISH & RIC		N PC		CHU, KIM KWOK	
225 FRANK BOSTON, M				ART UNIT	PAPER NUMBER
	-			2653	
				DATE MAILED: 02/19/2004	1

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 427 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 427 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.